

## **REMARKS**

This Amendment and Request for Reconsideration is filed in response to the Office Action mailed on 15 June 2004 for the above-referenced patent application. The Applicants hereby respectfully request entry of this Amendment.

In the present Amendment, the Applicants amend claims 1-4, 8, and 14; claims 16-20 have been previously withdrawn. Thus, the Applicants hereby request reconsideration of all pending claims 1-15.

The Applicant submits that no new matter has been added by the amendment of claims 1-4, 8, and 14. Amended claim 1 presents language from previously recited claims 2 and 3; see also the present application on page 6 at lines 4-5, for example. Amended claim 2 presents language from previously recited claim 4. Amended claim 3 presents language from previously recited claim 4; see also support on page 16 at lines 9-17. Amended claim 8 presents language with support on page 12 at lines 9-10 and page 5 at lines 1-4 (advantageous thinner top layer for forming narrow trackwidth sensors). Amended claim 14 presents language from original claim 12.

*In the Office Action mailed on 11 May 2004, the Examiner indicated a conditional allowability of claims 5-8 and 9-15.* In response, the Applicants respectfully acknowledge the Examiner's expedient indication of allowability for such claims and submit that these claims warrant a broad scope of patent coverage.

*In the same Office Action, the Examiner rejected claims 1, 2, and 4 under 35 U.S.C. Sect. 102(e) as being anticipated by Pinarbasi et al. (U.S. 6,218,056).* The Applicants have amended claim 1 to recite, among other things, that the hardmask layer is "a highly etch-resistant material comprising one of silicon, titanium, and tantalum".

Since the Pinarbasi et al. reference does not teach or suggest such limitation, these rejections are now overcome.

*In the same Office Action, the Examiner rejected claims 1 and 4 under 35 U.S.C. Sect. 102(e) as being anticipated by Han et al. (U.S. Patent No. 6,493,926). In response, since the Applicants have amended claim 1 and the Han et al. reference does not teach or suggest such limitations, these rejections of claims are also now overcome.*

*In the same Office Action, the Examiner rejected claim 2 under 35 U.S.C. Sect. 103(a) as being unpatentable over Han et al. and rejected claim 3 under 35 U.S.C. Sect. 103(a) as being unpatentable over Han et al. further in view of Kawai (U.S. Patent No. 6,468,902). In response, the Applicants have amended claim 1 as described above which relates to these rejections. Amended claim 1 is not obvious based on at least the following. Newly amended claim 1 reads:*

A method of forming a read sensor for a magnetic head, comprising:

forming a lift-off mask over a central region of a sensor layer, the lift-off mask comprising a hardmask layer over a release layer;

the hardmask layer being a highly etch-resistant material comprising one of silicon, titanium, and tantalum;

ion milling the sensor layer, with the lift-off mask in place, such that the end portions of the sensor layer are removed and a central portion of the sensor layer remains;

depositing lead layers adjacent to the central portion of the sensor layer; and

dissolving the release layer to remove the lift-off mask.

In anticipation of any obviousness rejection of newly-amended claim 1, the Applicants respectfully submit that there is no adequate suggestion or motivation to combine the references as the Examiner does in the previous rejection. Only through impermissible hindsight reconstruction would one develop the method of the present invention as

defined by amended claim 1. The invention is advantageous in that a thinner top layer (hardmask) can be achieved along with high etch selectivity. The Kawai reference, which suggests use of a certain mask of tantalum within a certain semiconductor etch process, cannot be used merely to replace a long-used material in a well-known, mostly successful, process of making read sensors.

Other amended claims are allowable for additional reasons, such as amended claims 2 and 3 (where release layer is a metal which may serve as an antireflective coating) and claim 8 (where hardmask layer has a thickness of 600-2000 Angstroms).

*In the same Office Action, the Examiner provisionally rejected claims 1-15 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-20 of copending Application No. 10/109,110.* The Examiner states that, although the conflicting claims are not identical, they are not patentably distinct from each other because they describe a method for forming magnetic heads using a lift-off mask which includes a release and hardmask layers. In response, the Applicant respectfully submits that the present amendment to the claims should alleviate any concern regarding double patenting. In any event, a terminal disclaimer will be considered if needed.

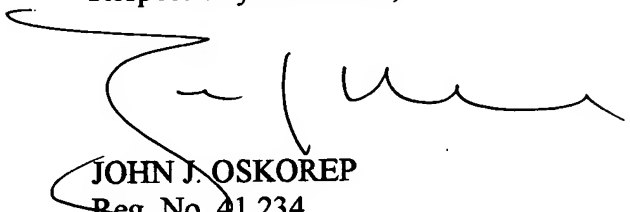
Based on the above, the Applicant respectfully submits that the rejections cited in the first Office Action have now been overcome. Pending claims 1-15 are now allowable over the prior art of record, and the application is in a condition suitable for allowance.

Thank you. The Examiner is invited to contact the undersigned if necessary to expedite prosecution for this case.

Respectfully Submitted,

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